

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An optical scanner comprising:

a plurality of light sources configured to emit beams including first and second beams;

a coupling optical system configured to couple beams emitted from the light sources;

a line image focusing optical system configured to focus each beam coupled to a line image extending longer in a main scan direction;

a deflector provided with deflecting reflective surfaces on focused positions of the line image and a common rotary axis for the deflecting reflective surfaces, and configured to be shared by the beams from the light sources and to deflect the beams focused;

a scanning optical system provided with at least ~~two~~ first and second scanning lenses ~~and, each~~ configured to guide ~~the beams~~ a corresponding beam deflected to a corresponding target surface of a plurality of target surfaces for optical scanning; and

a photodetector configured to receive the beams deflected at the deflector,

wherein

the beams traveling toward the deflector have an open angle θ in a deflecting rotation plane,

a scanning lens proximate to one of the target surfaces, among the at least ~~two~~ first and second scanning lenses, passes only the beams traveling toward the one of the target surfaces, and

the first and second scanning lenses are proximate to the target surfaces, ~~among the at least two scanning lenses,~~ and are configured to guide the corresponding beams to different target surfaces ~~have optical actions different from each other, and are arranged in different layouts,~~ each scanning lens of the first and second scanning lens has a shape that

asymmetrically varies along a line perpendicular to a corresponding optical axis, and the line of the first scanning lens is oriented at an angle different from the line of the second scanning lens relative to the corresponding optical axis.

Claim 2 (Previously Presented): The optical scanner according to claim 1, wherein the scanning lens proximate to one of the target surfaces has a power in a sub scan direction higher than a power in a sub scan direction of a scanning lens proximate to the deflector.

Claim 3 (Previously Presented): The optical scanner according to claim 1, wherein the scanning optical system arranged between the deflector and the plurality of target surfaces for guiding the beams to different target surfaces includes a reducing optical system.

Claim 4 (Canceled).

Claim 5 (Previously Presented): The optical scanner according to claim 1, wherein the scanning lens proximate to one of the target surfaces has a radius of sub scan curvature on at least one surface asymmetrically varying gradually from an optical axis toward both peripheries.

Claim 6 (Currently Amended): The optical scanner according to claim [[5]] 1, wherein the first and second scanning lenses proximate to the target surfaces for guiding the beams to different target surfaces have a same shape as each other and ~~are rotated about an the optical axis by 180 degrees oppositely from each other and arranged in different layouts~~ the line of the first scanning lens is oriented 180 degrees from the line of the second scanning lens relative to the corresponding optical axis.

Claim 7 (Original): The optical scanner according to claim 1, wherein the beams emitted from at least two light sources corresponding to different target surfaces are spatially separated from each other in the deflecting rotation plane on optical paths extending from the light sources to the line image focusing optical system.

Claim 8 (Original): The optical scanner according to claim 1, wherein at least two light sources corresponding to different target surfaces are integrated.

Claim 9 (Previously Presented): The optical scanner according to claim 1, wherein the photodetector configured to receive the beams deflected at the deflector receives the beams corresponding to different target surfaces.

Claims 10-22 (Canceled).

Claim 23 (Currently Amended): An image forming apparatus comprising:
an optical scanner comprising:
a plurality of light sources configured to emit beams including first and second beams;
a coupling optical system configured to couple beams emitted from the light sources;
a line image focusing optical system configured to focus each beam coupled to a line image extending longer in a main scan direction;
a deflector provided with deflecting reflective surfaces on focused positions of the line image and a common rotary axis for the deflecting reflective surfaces, and configured to be shared by the beams from the light sources and to deflect the beams focused;

a scanning optical system provided with at least ~~two~~ first and second scanning lenses and, each configured to guide ~~the beams~~ a corresponding beam deflected to a corresponding target surface of a plurality of photosensitive objects surfaces for optical scanning; and
a photodetector configured to receive the beams deflected at the deflector,
wherein
the beams traveling toward the deflector have an open angle θ in a deflecting rotation plane,

a scanning lens proximate to one of the photosensitive objects, among the at least ~~two~~ first and second scanning lenses, passes only the beams traveling toward the one of photosensitive objects, and

the first and second scanning lenses are proximate to the photosensitive objects, among the at least two scanning lenses, and are configured to guide the corresponding beams to different photosensitive objects have optical actions different from each other, and are arranged in different layouts, each scanning lens of the first and second scanning lens has a shape that asymmetrically varies along a line perpendicular to a corresponding optical axis, and the line of the first scanning lens is oriented at an angle different from the line of the second scanning lens relative to the corresponding optical axis.

Claims 24-26 (Canceled).

Claim 27 (Currently Amended): An optical scanner comprising:

a plurality of light sources configured to emit beams including first and second beams;

a coupling optical system configured to couple beams emitted from the light sources;

a line image focusing optical system configured to focus each beam coupled to a line image extending longer in a main scan direction;

a deflector provided with deflecting reflective surfaces on focused positions of the line image and a common rotary axis for the deflecting reflective surfaces, and configured to be shared by the beams from the light sources and to deflect the beams focused;

a scanning optical system provided with at least ~~two~~ first and second scanning lenses and, each configured to guide ~~the beams~~ a corresponding beam deflected to a corresponding target surface of a plurality of target surfaces for optical scanning; and

a photodetector configured to receive the beams deflected at the deflector,

wherein

the beams traveling toward the deflector have an open angle θ in a deflecting rotation plane,

a scanning lens proximate to one of the target surfaces, among the at least ~~two~~ first and second scanning lenses, passes only the beams traveling toward the one of the target surfaces, and

the first and second scanning lenses are proximate to the target surfaces, among the at least two scanning lenses, are configured to guide the corresponding beams to different target surfaces have optical actions different from each other, and have a same shape as each other, and are rotated about an optical axis by 180 degrees oppositely from each other and arranged in different layouts, each scanning lens of the first and second scanning lens has a shape that asymmetrically varies along a line perpendicular to a corresponding optical axis, and the line of the first scanning lens is oriented 180 degrees from the line of the second scanning lens relative to the corresponding optical axis, and

one of the scanning lenses proximate to the target surfaces has a radius of sub scan curvature on at least one surface asymmetrically varying gradually from an optical axis toward both peripheries.